

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P965236

Luminaire Tested: **NAV-SB3D-830-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965236
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-830-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28599.5 lumens
Efficiency: N/A
Efficacy: 131.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 218.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



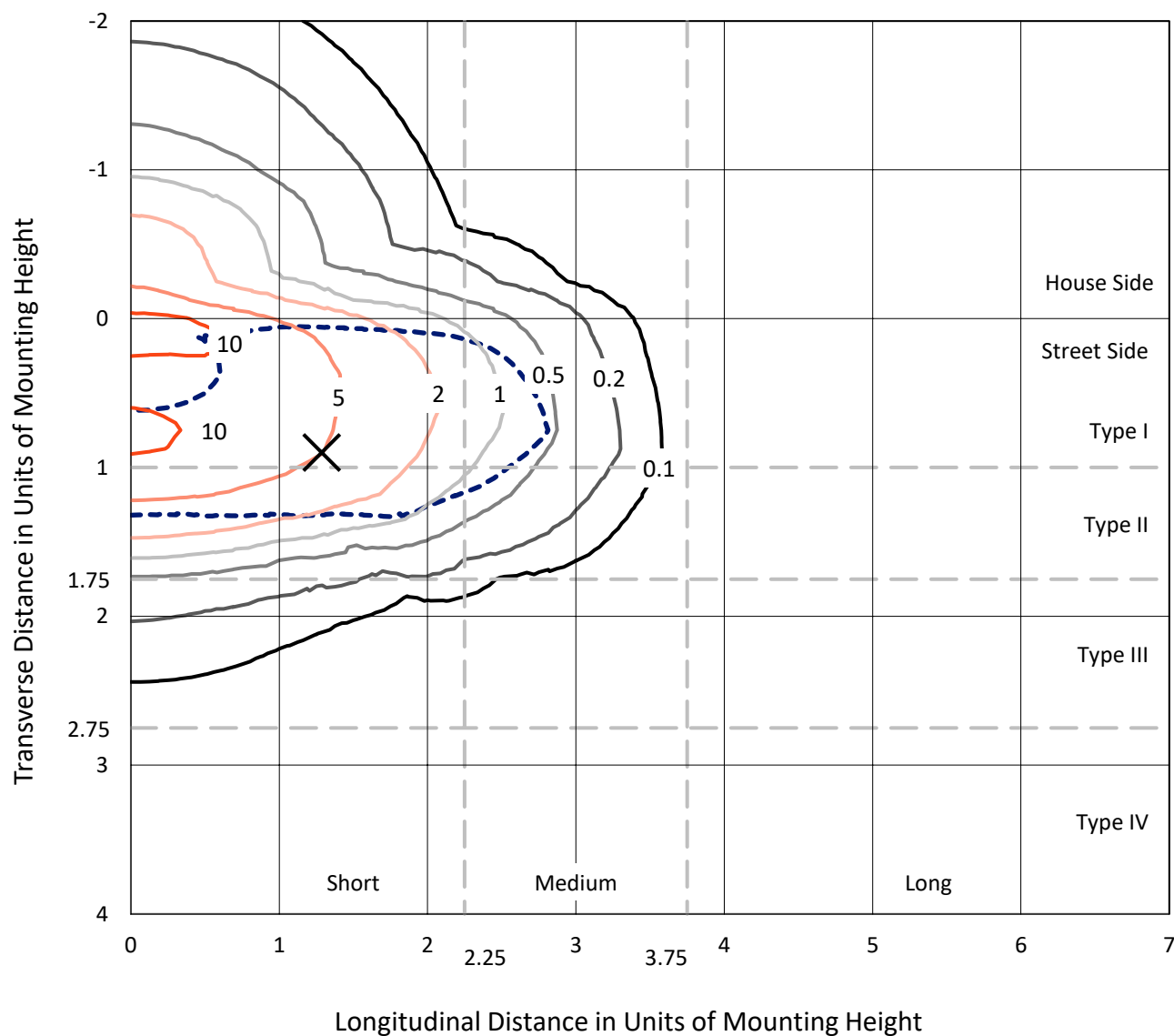
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

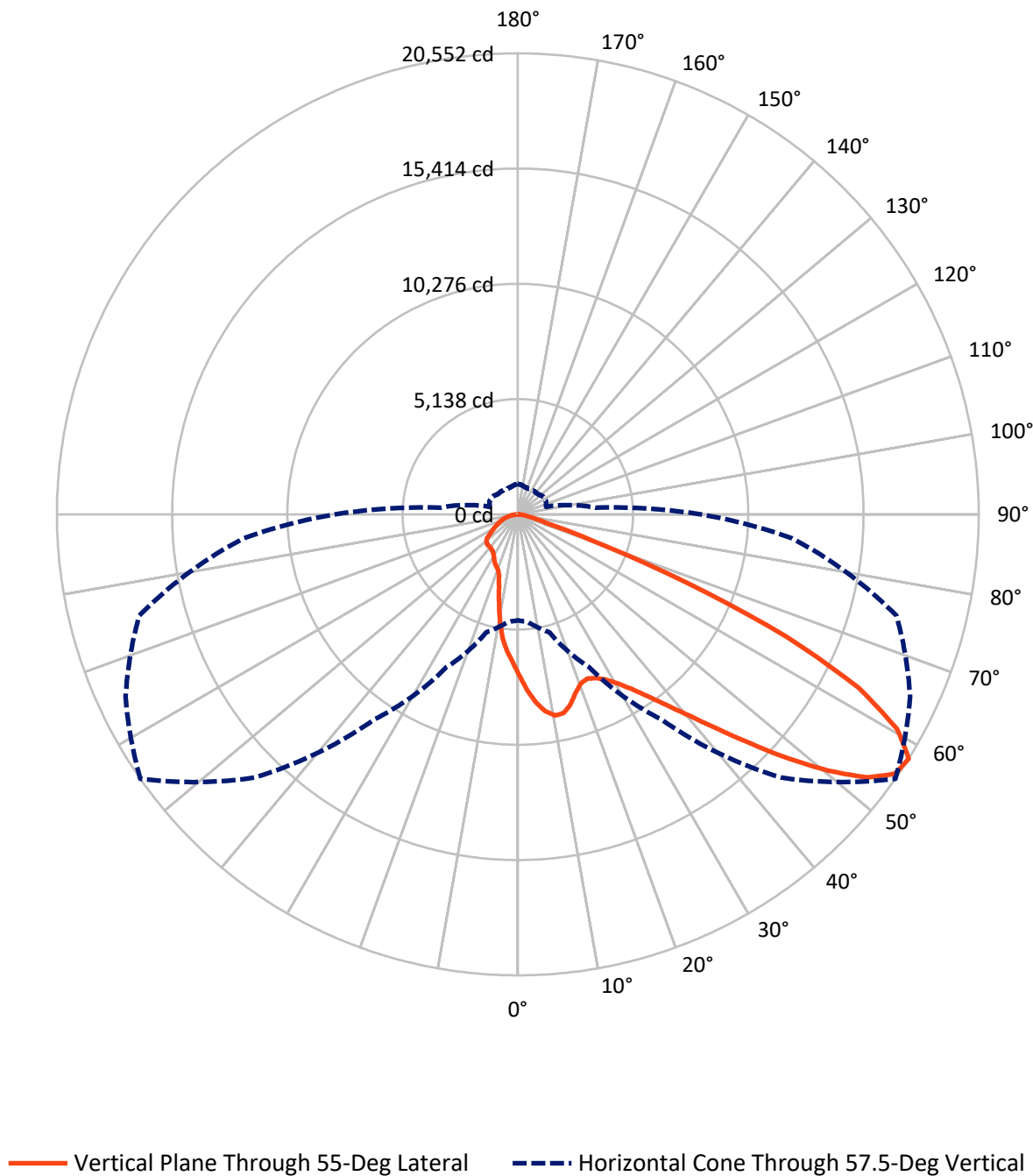


Based on 25 foot mounting height. Maximum calculated value = 13.9 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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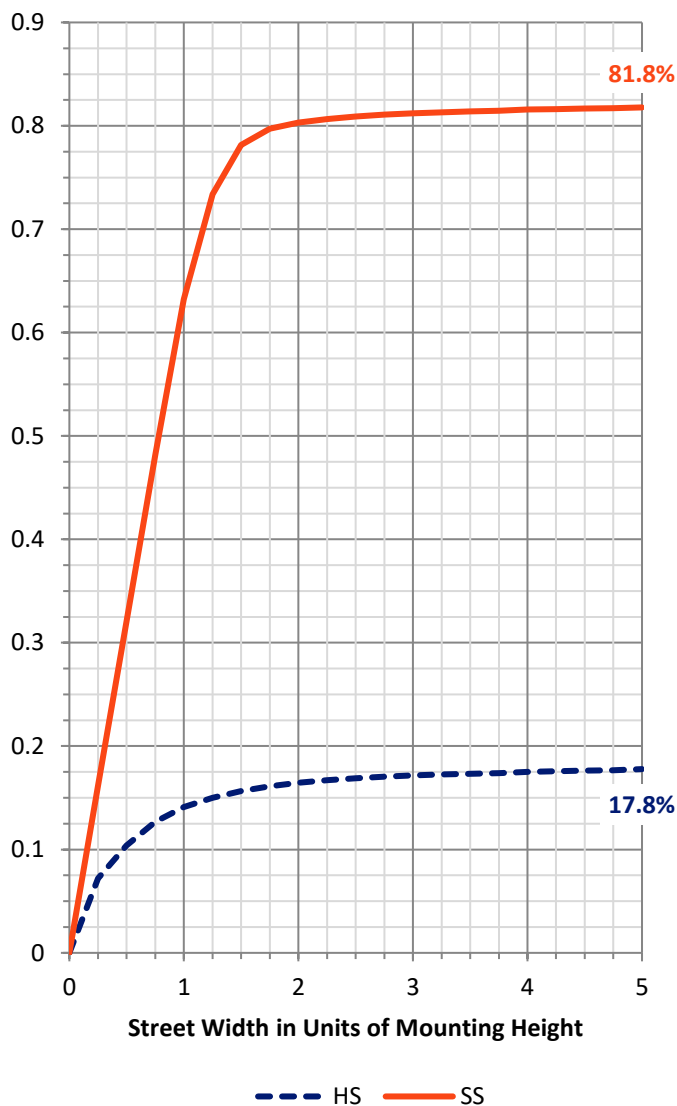
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5174.9	0.0	5174.9
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	23424.6	0.0	23424.6
	% Fixture	81.9	0.0	81.9
Total	Lumens	28599.5	0.0	28599.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	665.0	2.3
10°-20°	1678.4	5.9
20°-30°	2678.3	9.4
30°-40°	4240.4	14.8
40°-50°	6490.4	22.7
50°-60°	6951.8	24.3
60°-70°	4373.4	15.3
70°-80°	1293.3	4.5
80°-90°	228.7	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	28599.5	100.0
0°-180°	28599.5	100.0

Coefficient of Utilization



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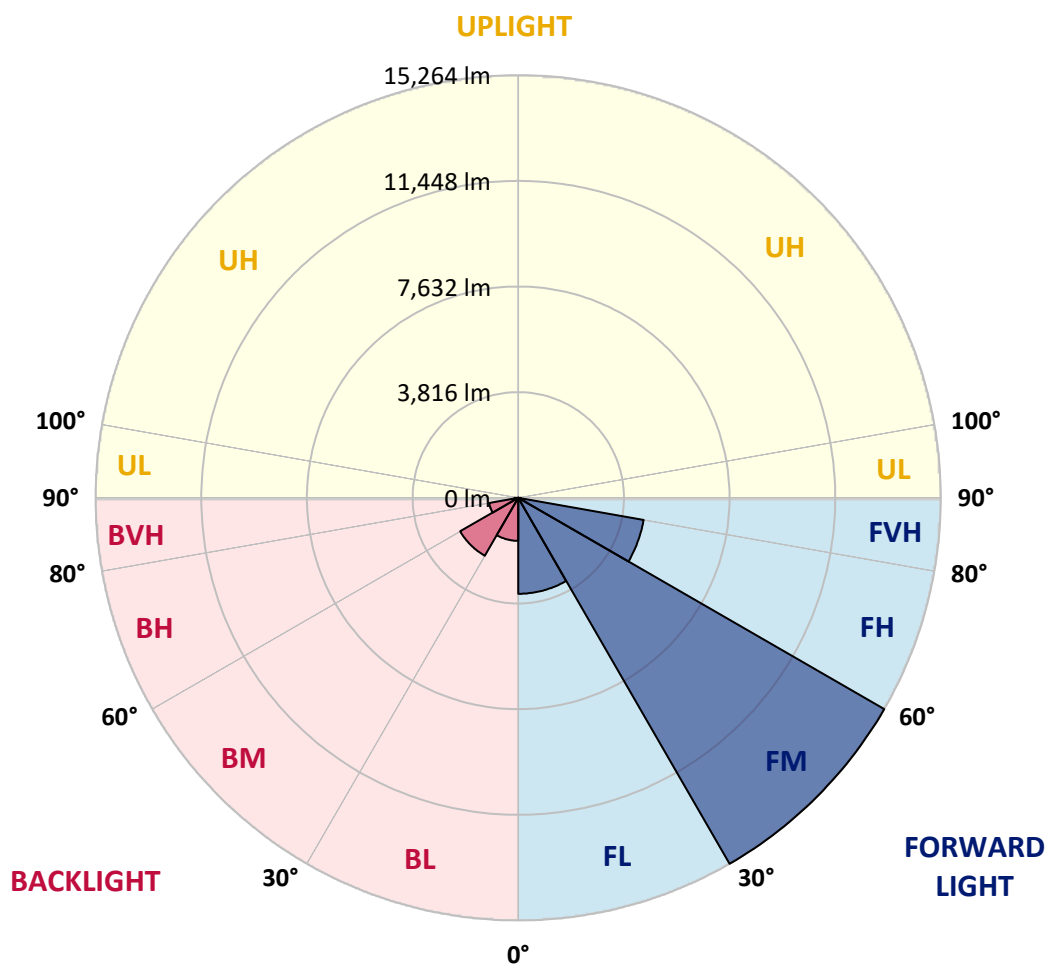
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3466.3	12.1			
FM	(30°-60°)	15263.8	53.4			
FH	(60°-80°)	4597.9	16.1			G2/5000
FVH	(80°-90°)	96.6	0.3			G1/100
BL	(0°-30°)	1555.4	5.4	B3/2500		
BM	(30°-60°)	2418.7	8.5	B2/2500		
BH	(60°-80°)	1068.7	3.7	B3/2500		G3/2500
BVH	(80°-90°)	132.1	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7166.1	7166.1	7166.1	7166.1	7166.1	7166.1	7166.1	7166.1	7166.1	7166.1	7166.1
2.5°	8221.7	8215.8	8248.4	8137.5	8062.0	7960.0	7825.5	7654.0	7469.2	7274.0	7189.8
5°	8962.5	8910.7	8944.7	8861.9	8779.1	8625.4	8425.8	8146.3	7804.9	7416.0	7209.0
7.5°	8845.6	8810.2	8897.4	8971.3	9033.4	9014.2	8867.8	8575.0	8134.5	7569.7	7269.6
10°	7903.9	7864.0	7986.7	8242.4	8618.0	8944.7	9122.1	8940.3	8471.6	7738.2	7328.7
12.5°	7073.0	7053.7	7135.0	7342.1	7758.9	8385.8	9089.6	9259.6	8822.0	7937.9	7408.6
15°	6718.2	6694.5	6746.2	6851.2	7117.3	7701.3	8793.9	9478.5	9166.5	8168.5	7535.7
17.5°	6639.7	6613.2	6635.3	6690.1	6861.6	7306.6	8347.4	9586.4	9525.7	8425.8	7642.2
20°	6784.7	6762.5	6765.4	6762.5	6882.3	7235.6	8036.9	9545.0	9839.2	8662.3	7745.7
22.5°	7135.0	7098.1	7099.6	7021.2	7086.2	7359.8	7955.6	9434.1	10118.6	8869.3	7824.0
25°	7705.7	7639.2	7652.5	7453.0	7435.2	7637.8	8082.7	9348.3	10396.6	9034.9	7838.8
27.5°	8486.4	8410.9	8371.1	8073.9	7932.0	8032.5	8341.4	9377.9	10659.7	9178.3	7801.9
30°	9462.2	9370.6	9289.2	8867.8	8610.6	8573.6	8743.7	9573.1	10970.2	9329.1	7738.2
32.5°	10658.3	10551.8	10404.0	9845.1	9482.9	9289.2	9264.1	9920.5	11333.9	9521.3	7705.7
35°	12082.0	11943.0	11733.1	11010.1	10551.8	10155.6	9950.1	10421.7	11832.2	9811.1	7742.7
37.5°	13548.7	13391.9	13199.7	12339.3	11776.0	11192.0	10786.9	11101.8	12496.0	10204.4	7840.3
40°	14901.4	14725.6	14546.6	13780.8	13176.1	12472.3	11811.5	11962.3	13307.7	10674.6	8005.9
42.5°	15699.8	15569.7	15501.7	15087.7	14620.5	13906.5	13085.9	12982.4	14219.8	11215.7	8195.1
45°	15664.4	15611.2	15821.1	15992.6	15881.7	15485.4	14579.2	14110.5	15135.0	11684.3	8369.6
47.5°	14827.5	14863.0	15331.6	16295.7	16720.0	16927.0	16279.4	15217.9	15930.4	12034.7	8447.9
50°	12550.7	12580.2	13665.4	15744.2	16935.8	18102.3	17966.3	16298.6	16547.0	12249.1	8430.2
52.5°	10748.5	10767.6	11233.4	14109.0	16223.2	18693.7	19486.2	17317.3	16997.9	12308.2	8331.2
55°	8096.1	8162.6	8684.5	11069.3	14369.2	18225.0	20411.6	18367.0	17283.2	12314.1	8227.7
57.5°	4729.7	4802.0	5446.6	7513.6	11168.3	16591.4	20552.2	19298.4	17477.0	12266.8	8165.6
60°	2316.7	2347.8	2628.7	3949.0	6886.7	13443.7	19422.6	19749.3	17584.9	12241.7	8162.6
62.5°	1561.3	1556.9	1568.7	1948.6	3393.1	8637.2	17068.9	18959.8	17527.2	12145.6	8133.1
65°	1342.4	1326.1	1281.9	1367.6	1757.9	3950.5	13187.9	16603.2	17088.1	11904.6	7930.5
67.5°	1160.6	1162.0	1163.6	1136.9	1255.2	1823.0	8059.1	13078.5	15512.0	10763.2	7149.9
70°	961.0	974.3	980.2	980.2	1023.1	1196.1	3440.4	8963.9	12235.7	8439.0	5758.7
72.5°	875.2	847.2	850.1	835.4	835.4	910.7	1385.3	5081.4	7708.7	4747.4	3514.3
75°	714.1	731.8	734.8	724.5	690.4	694.8	822.0	2131.9	3298.4	1969.3	1737.2
77.5°	616.5	616.5	622.5	615.0	588.5	520.4	548.5	826.5	1122.2	807.3	867.9
80°	495.3	493.8	519.0	533.7	492.3	384.4	350.3	456.8	498.3	354.9	450.9
82.5°	241.0	255.7	356.3	406.6	374.0	278.0	214.3	283.8	266.1	156.7	202.5
85°	140.4	133.0	159.7	226.2	214.3	153.8	103.5	147.8	139.0	79.8	81.3
87.5°	44.4	41.4	32.5	76.9	62.1	42.8	28.1	42.8	38.4	17.7	17.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7166.1	7166.1	7166.1	7166.1	7166.1	7166.1	7166.1	7166.1	7166.1	7166.1
2.5°	7084.8	6910.3	6737.3	6579.2	6483.0	6421.0	6358.9	6289.4	6262.7	6222.9
5°	7013.9	6676.7	6376.6	6117.9	5882.8	5698.0	5511.7	5361.0	5292.9	5338.7
7.5°	6972.5	6484.6	6021.8	5547.2	5090.4	4725.1	4407.3	4184.0	4083.5	4108.6
10°	6935.5	6267.3	5562.0	4812.4	4156.0	3703.5	3378.3	3208.2	3144.7	3158.0
12.5°	6901.4	6023.3	5007.5	4021.4	3323.6	3025.0	2931.8	2933.2	2945.1	2953.9
15°	6895.6	5729.0	4388.1	3329.5	2874.1	2854.9	2955.5	3019.0	3053.1	3063.4
17.5°	6886.7	5377.2	3756.8	2857.9	2764.7	2894.8	2988.0	3029.4	3056.0	3057.5
20°	6851.2	4930.7	3174.2	2633.1	2741.1	2853.4	2911.1	2943.6	2965.8	2973.2
22.5°	6741.8	4433.9	2720.4	2532.6	2646.4	2736.6	2804.6	2841.6	2854.9	2863.7
25°	6545.1	3878.0	2406.9	2436.5	2514.8	2628.7	2683.4	2690.8	2686.3	2699.6
27.5°	6287.9	3282.2	2211.7	2306.5	2406.9	2504.5	2534.1	2529.7	2520.8	2535.5
30°	5977.4	2747.0	2087.6	2160.1	2297.5	2386.2	2412.8	2402.5	2384.8	2401.1
32.5°	5649.2	2309.3	1985.5	2058.0	2207.3	2294.6	2321.2	2310.9	2297.5	2310.9
35°	5343.2	2003.4	1890.9	1990.0	2136.4	2222.1	2256.1	2257.7	2257.7	2273.9
37.5°	5062.3	1824.4	1812.6	1947.1	2087.6	2164.5	2213.3	2216.3	2152.6	2157.1
40°	4802.0	1749.1	1777.1	1919.0	2040.3	2114.2	2117.1	1951.6	1834.7	1831.8
42.5°	4589.1	1734.2	1787.5	1916.1	2006.2	2009.2	1800.7	1672.2	1639.6	1641.1
45°	4389.6	1729.8	1811.1	1916.1	1956.0	1735.7	1595.3	1561.3	1564.3	1576.0
47.5°	4166.3	1712.1	1815.6	1889.5	1811.1	1543.5	1502.1	1487.4	1481.4	1484.4
50°	3922.4	1648.5	1759.4	1836.3	1562.7	1460.7	1409.0	1404.6	1411.9	1416.3
52.5°	3665.1	1545.0	1663.3	1740.1	1448.9	1388.3	1330.7	1341.0	1373.5	1383.9
55°	3496.6	1423.7	1536.2	1548.0	1369.1	1320.3	1271.5	1295.1	1355.8	1374.9
57.5°	3452.2	1295.1	1391.2	1377.9	1267.0	1261.2	1231.5	1252.2	1329.1	1357.2
60°	3438.9	1179.8	1249.3	1238.9	1168.0	1196.1	1188.7	1199.0	1225.7	1234.5
62.5°	3335.5	1088.1	1122.2	1107.4	1079.3	1128.1	1145.8	1123.6	1144.3	1154.7
65°	3072.2	1014.2	997.9	987.6	999.5	1043.8	1079.3	1034.9	1054.1	1083.7
67.5°	2637.5	913.7	869.3	881.2	918.1	941.8	987.6	937.4	953.7	1003.9
70°	2133.4	786.6	746.6	780.6	816.1	864.9	872.3	838.2	876.7	933.0
72.5°	1509.5	657.9	629.9	699.4	711.1	774.7	758.5	742.2	795.4	814.7
75°	1046.7	530.7	514.6	567.7	610.6	665.3	653.4	672.7	785.0	794.0
77.5°	662.4	412.5	402.1	436.1	495.3	555.9	575.1	794.0	1341.0	1394.2
80°	384.4	307.5	295.7	322.3	374.0	430.2	554.4	974.3	884.2	873.8
82.5°	214.3	211.5	196.6	204.1	249.9	310.5	783.6	686.0	557.4	575.1
85°	100.6	124.2	106.5	102.0	140.4	363.7	523.4	391.8	260.2	254.3
87.5°	26.6	23.7	23.7	26.6	59.1	313.4	208.5	167.1	99.0	96.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)